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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HIROSI TUNODA

Appeal 2008-4748
Application 09/406,798
Technology Center 2600

Decided: December 1, 2008

Before JOSEPH F. RUGGIERO, ROBERT E. NAPPI, and ELENI MANTIS
MERCADER, *Administrative Patent Judges*.

MANTIS MERCADER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant seeks our review under 35 U.S.C. § 134 of the Examiner's rejection of claims 1-27. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

INVENTION

Appellant's claimed invention is directed to a method for image recording by storing image data obtained during an image pickup operation in a storage medium; measuring the amount of the image data stored in the storage medium until reaching a predetermined amount of data; and after reaching the predetermined amount of data, recording the image data being stored in the storage medium into a non-volatile recording medium, in parallel with the step of storing in the storage medium image data obtained by the image pickup operation performed after reaching the predetermined amount of data. (Spec. 5:3-13).

Claim 1, reproduced below, is representative of the subject matter on appeal:

1. A method for recording image, comprising the steps of:
storing image data continuously obtained by an image pickup operation in a storage medium;
measuring the amount of the image data stored in the storage medium until reaching a predetermined amount of data; and
recording each piece of the image data being stored in the storage medium into a non-volatile recording medium after the measured amount of the image data equals the predetermined amount,

wherein after starting the step of recording, the step of storing each piece of image data continuously obtained by the image pickup operation in the storage medium and the step of recording each piece of the image data being stored in the storage medium into the non-volatile recording medium are performed continuously, in parallel and irrespective of the amount of the image data stored in the storage medium during the image pickup operation without pausing, interrupting or reducing the rate of recording the image data.

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Anderson	US 5,867,214	Feb. 02, 1999
Fukushima	US 6,253,023 B1	Jun. 26, 2001 (filed Mar. 24, 1997)

The following rejection is before us for review:

1. Claims 1, 3, 4, 7, 9, 10, 13, 15, 16, 19, 21, 22, 24, 25, and 27 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Fukushima.
2. Claims 2, 5, 6, 8, 11, 12, 14, 17, 18, 20, 23, and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fukushima in view of Anderson.

ANTICIPATION

There are two anticipation issues before us regarding whether Appellant has shown that the Examiner erred in rejecting claims 1, 3, 4, 7, 9, 10, 13, 15, 16, 19, 21, 22, 24, 25, and 27 under 35 U.S.C. § 102(e).

The first issue is whether the Examiner erred in determining that Fukushima discloses “the step of storing . . . and the step of recording . . . are performed continuously, in parallel and irrespective of the amount of the image data stored . . . without pausing, interrupting or reducing the rate of recording the image data” as claimed.

The second issue is whether the Examiner erred in determining that Fukushima discloses recording and storing image data “irrespective of the amount of the image data stored in the storage medium during the image pickup operation” as claimed.

FINDINGS OF FACT

The relevant facts include the following:

1. Fukushima discloses that while SW1 and SW2 are continuously depressed by a photographer (S3 and S5), images are captured and stored in the buffer memory (in Figure 1 element 6; S7-S8).
2. Fukushima assigns a counter flag RECCNT (S9) to keep track of the current number of pictures in the buffer memory (6) such that when the current count exceeds a certain minimum (S11) number of images, the hard drive is activated and the images stored in the buffer memory are permanently recorded in the hard drive (S13-S16) (col. 8, ll. 21-44).
3. Fukushima further discloses that the hard drive (8) is then switched back to a power save mode (col. 8, ll. 44-46 and Ans. 13).
4. Fukushima discloses that if the count value of the RECCNT exceeds the value CTH in Step S11 or S12 of Figure 2, the system controller 14

transmits an active command to the hard disk unit provided in the hard disk part 8, and the hard disk unit is switched to active mode, whereby the hard disk unit starts rotating (S13 in Fig. 2).

5. Fukushima discloses that when the hard drive unit rotates, the data stored in the buffer memories M0 to M7 of the memory part 6 are transmitted to the hard disk part 8, and the count value of the RECCNT provided in the system controller 14 is decremented by the number of images corresponding to the image data transmitted from memory 6 to hard disk part 8 (col. 8, ll. 27-49).
6. Fukushima discloses from the time both SW1 and SW2 are depressed and held depressed until the time at least one of SW1 and SW2 are no longer depressed, the images are continuously captured and transferred to the buffer memory at a steady rate (in Fig. 2, elements S3, S5 and S10; and col. 3, ll. 39-43).
7. Appellant's Specification states that the recording operation does not start until the completion of storing of the compressed MP data for the first 15 frames (Spec. 17:14-18).
8. Appellant's Specification further states that "the recording operation in the recording medium 11 is suspended at tB1, and the suspension continues until the operations using the storage medium 10 are finished" (Spec. 17:22-24).
9. Fukushima teaches that the recording operation (i.e., transmission of the image data to hard disk part 8 shown in Fig. 2, step S15; col. 8, ll. 20-26) is suspended while the storing operation is occurring for the predetermined amount of data (i.e., in the continuous-shooting recording when the count

value of the RECCNT exceeds a value CTH indicative of a predetermined storable member of exposures) (col. 8, ll. 9-13).

10. Fukushima utilizes the suspension time towards saving electrical energy by stopping rotation of the hard disk (i.e., suspending the recording operation) while awaiting the buffer memories M0 to M7 to reach the predetermined amount of image data (i.e., storing operation) (col. 10, ll. 23-53).

11. Fukushima explicitly teaches a “continuous-shooting recording operation without causing the buffer memories M0 to M7 of the memory part 6 to overflow and interrupting the continuous-shooting recording operation during the continuous-shooting recording mode” (col. 10, ll. 35-42).

PRINCIPLES OF LAW

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. Inc., v. Union Oil Co. of Calif.*, 814 F.2d 628, 631 (Fed. Cir. 1987).

Analysis of whether a claim is patentable over the prior art under 35 U.S.C. § 102 begins with a determination of the scope of the claim. We determine the scope of the claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

The claim terms should be given their broadest reasonable meaning in their

ordinary usage as such claim terms would be understood by one skilled in the art by way of definitions and the written description. *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

The claims, of course, do not stand alone. Rather, they are part of a ‘fully integrated written instrument’ . . . consisting principally of a specification that concludes with the claims. For that reason, claims ‘must be read in view of the specification, of which they are a part.’ [T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’

Phillips v. AWH Corp., 415 F.3d 1303, 1315 (Fed. Cir. 2005).

During ex parte prosecution, claims must be interpreted as broadly as their terms reasonably allow since applicants have the ability during the administrative process to amend the claims to avoid the prior art. *In re Zletz*, 893 F.2d 319, 322 (Fed. Cir. 1989).

ANALYSIS

Initially, we note that claims 1, 3, 4, 7, 9, 10, 13, 15, 16, 19, 21, 22, 24, 25, and 27 were argued as a group with claim 1 as representative (App. Br. 13-16).¹ Accordingly, claims 3, 4, 7, 9, 10, 13, 15, 16, 19, 21, 22, 24, 25, and 27, which are subject to the same ground of rejection, stand or fall with claim 1. *See* 37 C.F.R. §

¹ Only arguments made by Appellant have been considered in this decision. Arguments which Appellant could have made but did not make in the Brief have not been considered and are deemed waived. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2004).

41.37 (c)(1)(vii) (2004).

a) Did the Examiner err in determining that Fukushima discloses “the step of storing . . . and the step of recording . . . are performed continuously, in parallel and irrespective of the amount of the image data stored . . . without pausing, interrupting or reducing the rate of recording the image data” as claimed?

Appellant argues that Fukushima fails to expressly or inherently describe the limitation of “the step of storing . . . and the step of recording . . . are performed continuously, in parallel and irrespective of the amount of the image data stored . . . without pausing, interrupting or reducing the rate of recording the image data” (App. Br. 13). Appellant argues that Fukushima’s hard drive cannot be kept operating continuously and in parallel with both the storing and recording operations of the image data due to the required power consumption, and therefore, must be switched to a power save mode or a stand-by-mode (App. Br. 13-14). Appellant states that regardless of the use of the term “continuous” recited in Fukushima, there is still no suggestion that image data may be stored in a storage medium and then recorded in a non-volatile recording medium continuously and in parallel as recited in the independent claims (App. Br. 14-16).

The Examiner responds that Fukushima discloses that while SW1 and SW2 are continuously depressed by a photographer (S3 and S5), images are captured and stored in the buffer memory (in Figure 1 element 6; S7-S8) (Finding of Fact 1 and Ans. 13). The Examiner further states that Fukushima assigns a counter flag

RECCNT (S9) to keep track of the current number of pictures in the buffer memory (6) such that when the current count exceeds a certain minimum (S11) number of images, the hard drive is activated and the images stored in the buffer memory are permanently recorded in the hard drive (S13-S16) (Finding of Fact 2 and Ans. 13). The Examiner further states that hard drive (8) is then switched back to a power save mode (Finding of Fact 3 and Ans. 13). The Examiner states that according to Fukushima, if the count value of the RECCNT exceeds the value CTH in step S11 or S12 of Figure 2, the system controller 14 transmits an active command to the hard disk unit provided in the hard disk part 8, and the hard disk unit is switched to active mode, whereby the hard disk unit starts rotating (Finding of Fact 4 and Ans. 13). The Examiner further finds that Fukushima teaches that when the hard drive unit rotates, the data stored in the buffer memories M0 to M7 of the memory part 6 are transmitted to the hard disk part 8, and the count value of the RECCNT provided in the system controller 14 is decremented by the number of images corresponding to the image data transmitted from memory 6 to hard disk part 8 (Finding of Fact 5 and Ans. 13).

The Examiner notes that with respect to the entire picture taking operation (i.e., from the time both SW1 and SW2 are depressed and held depressed until the time at least one of SW1 and SW2 are no longer depressed), Fukushima continuously captures images and transfers them to the buffer memory at a steady rate (Finding of Fact 6 and Ans. 14). Therefore, the Examiner concludes that even though the hard drive is alternatively switched between a power saving mode and an activated mode, the switching is continuous and also at a steady rate (Ans. 14).

The Examiner further explains that when a certain number of images are stored in the buffer memory (i.e., 5 images), the hard drive is activated and records the images, and thereby, over the duration of the operation images would still be continuously captured and stored continuously and in parallel with operation of the hard drive (Ans. 14). The Examiner further explains that in effect, the basic operation of the hard drive would be as follows: power saving mode, activation, record images, power saving mode, activation, record images, etc. (Ans. 14). The Examiner concludes that the images are recorded at a steady rate and during operation of the continuous picture taking mode, while the basic operation of the hard drive is never paused or interrupted (Ans. 14).

The Appellant responds that the Examiner's explanation of switching modes is described by the word "continual" which means "of regular or frequent recurrence" which is not the same as the claimed term "continuous" which means "uninterrupted in time," and thus Fukushima does not anticipate the claims (Reply Br. 2).

We agree with the Examiner's findings of facts and conclusions as set out in the Answer and adopt them as our own. We add the following primarily for emphasis.

Appellant's Specification states that the recording operation does not start until the completion of storing of the compressed MP data for the first 15 frames (Finding of Fact 7). Appellant's Specification further states that "the recording operation in the recording medium 11 is *suspended* at tB1, and the suspension continues until the operations using the storage medium 10 are finished" (Finding

of Fact 8) (emphasis added). Thus, Appellant's recording operation is suspended while the storing operation is performed for the predetermined amount of data (i.e., 15 frames). Similarly, Fukushima teaches that the recording operation (i.e., transmission of the image data to hard disk part 8) is suspended while the storing operation is occurring for the predetermined amount of data (i.e., in the continuous-shooting recording when the count value of the RECCNT exceeds a value CTH indicative of a predetermined storable member of exposures) (Finding of Fact 9). The only difference is that Fukushima utilizes that *suspension* time towards saving electrical energy by stopping rotation of the hard disk (i.e., suspending the recording operation) while awaiting the buffer memories M0 to M7 to reach the predetermined amount of image data (i.e., storing operation) (Finding of Fact 10). Finally, Fukushima explicitly teaches a "continuous-shooting recording operation without causing the buffer memories M0 to M7 of the memory part 6 to overflow and interrupting the continuous-shooting recording operation during the continuous-shooting recording mode" (Finding of Fact 11). Thus, as stated *supra*, the claim terms of "continuously, in parallel and irrespective of the amount of the image data stored . . . without pausing, interrupting or reducing the rate of recording the image data" were read in view of the Specification which is the single best guide to the meanings of the disputed terms. *Phillips v. AWH Corp.*, 415 F.3d at 1315.

With respect to Appellant's argument that "continual" does not mean "continuous," the American Heritage Dictionary describes the two words as synonyms which mean "occurring repeatedly over a long period of time." *The*

American Heritage Online Dictionary, at <http://www.bartleby.com/61/22/C0602200.html> (last visited September 30, 2008).

Thus, we are not persuaded by Appellant's argument regarding the difference between the two words because the claim terms are given their broadest reasonable meaning in their ordinary usage as such claim terms would be understood by one skilled in the art by way of definitions and the written description. *In re Morris*, 127 F.3d at 1054. Furthermore, as stated *supra*, the specification "is the single best guide to the meaning of a disputed term," and the Examiner appropriately construed the claim language based on the meaning provided in Appellant's Specification. *Phillips v. AWH Corp.*, 415 F.3d at 1315.

For the above reasons, Appellant's argument has not persuaded us of error in the Examiner's rejection because Fukushima describes the limitation of "the step of storing . . . and the step of recording . . . are performed continuously, in parallel and irrespective of the amount of the image data stored . . . without pausing, interrupting or reducing the rate of recording the image data" (Findings of Fact 1-11).

b) Did the Examiner err in determining that Fukushima discloses recording and storing image data "irrespective of the amount of the image data stored in the storage medium during the image pickup operation" as claimed?

Appellant states that Fukushima fails to disclose recording and storing image data taking place "irrespective of the amount of the image data stored in the storage medium during the image pickup operation" as recited in the independent claims (App. Br. 16). Appellant cites Fukushima's column 3, lines 44-54 for teaching "storing in a recording medium . . . after a

predetermined amount of image data is stored in the first storage means,” and thus, implying a dependence on the amount of image data stored in the storage medium (App. Br. 16). Appellant further states that Figure 2 of Fukushima indicates that “DECREMENT RECCNT” is present in step 16, hence “TRANSMIT IMAGE DATA TO HARD DRIVE” in step 15 is not limited to transmittance of the entire image stored in the memory unit at once (App. Br. 16).

The Examiner responds that the entire picture taking operation performed by Fukushima to be from the time both SW1 and SW2 are depressed and held depressed until the time at least one of SW1 and SW2 are no longer depressed and during this operation Fukushima continuously captures images and transfers them to the buffer memory at a steady rate (Ans. 5 and 15). The Examiner further states that the duration and amount of images captured during the entire picture taking operation is solely determined by the photographer's desires (Ans. 15). Thus, the Examiner concludes that the step of storing and step of recording are indeed carried out irrespective of the total amount of the image data stored (Ans. 15).

We agree with the Examiner's findings of facts and conclusions as set out in the Answer. We add the following primarily for emphasis.

Appellant's Specification states that the recording operation does not start until the completion of storing of the compressed MP data for the first 15 frames (Finding of Fact 7). Appellant's Specification further states that “the recording operation in the recording medium 11 is *suspended* at tB1, and the suspension continues until the operations using the storage medium 10 are

finished” (Finding of Fact 8) (emphasis added). Similarly, Fukushima teaches that the recording operation (i.e., transmission of the image data to hard disk part 8 is suspended while the storing operation is occurring for the predetermined amount of data (i.e., in the continuous-shooting recording when the count value of the RECCNT exceeds a value CTH indicative of a predetermined storable member of exposures) (Finding of Fact 9).

Thus, we are not persuaded by Appellant’s argument that Fukushima fails to disclose recording and storing image data taking place irrespective of the amount of the image data stored in the storage medium (i.e., when $RECCNT > CTH$) because Appellant’s Specification similarly to Fukushima describes transfer of the image data once the storing operation is performed (i.e., when the storing operation of the 15 frames is performed) (Findings of Fact 7-9).

Furthermore, Fukushima teaches that the image pick up operation continues as long as the switches SW1 and SW2 are depressed (steps S3 and S5 of Fig. 2), and thus, the collection of the image data is “irrespective of the image data stored in the storage medium” because of the continuous and parallel transmission of the image data to the hard disk when the stored image data reach a predetermined amount (i.e., $RECCNT > CTH$) (Findings of Fact 1-5).

Finally, with respect to Appellant’s argument that the entire image stored in the memory unit of Fukushima is not transferred at once, first, we note the similarity of transferring operations between Fukushima and Appellant’s disclosure as already discussed *supra*, and secondly, we note that the claim language does not recite the terms “at once.”

Thus, Appellant's argument has not persuaded us of error in the Examiner's rejection because Fukushima teaches recording and storing image data taking place "irrespective of the amount of the image data stored in the storage medium during the image pickup operation" as recited in the independent claims (Findings of Fact 1-5 and 7-9).

OBVIOUSNESS

Appellant has presented no further arguments as to the rejected claims 2, 5, 6, 8, 11, 12, 14, 17, 18, 20, 23, and 26, but instead relies on the arguments provided for independent claims 1, 7, 13, 19, 22, and 25 (App. Br. 6). Thus, for the same reasons as articulated *supra* we find that the Examiner did not err in rejecting claims 2, 5, 6, 8, 11, 12, 14, 17, 18, 20, 23, and 26 under 35 U.S.C. § 103(a) as unpatentable over Fukushima in view of Anderson.

CONCLUSION OF LAW

We conclude that Appellant has not shown that the Examiner erred in rejecting claims 1, 3, 4, 7, 9, 10, 13, 15, 16, 19, 21, 22, 24, 25, and 27 under 35 U.S.C. § 102(e), and in rejecting claims 2, 5, 6, 8, 11, 12, 14, 17, 18, 20, 23, and 26 under 35 U.S.C. § 103(a).

ORDER

The decision of the Examiner to reject claims 1-27 is affirmed.

Appeal 2008-4748
Application 09/406,798

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

gvw

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